

~~MCKEE, VOORHEES & SEASE, PLC~~  
~~WCKEE, VOORHEES & SEASE, PLC~~

ATTORNEYS AT LAW

801 GRAND AVENUE • SUITE 3200 • DES MOINES, IA 50309-2721  
PHONE: 515-288-3667 • FAX: 515-288-1338 • www.ipmvs.com

DATE: September 2, 2003

TO: Mail Stop AF  
Art Unit 3671  
Examiner J. Petravick

COMPANY: U.S.P.T.O

PHONE:

FAX: 703-872-9327

FROM: Mark D. Hansing

NUMBER OF PAGES (Including cover): 12/5

COMMENTS:

APPLICANT : Mark W. Paulsen  
SERIAL NO : 10/037,113  
FILED : October 22, 2001  
TITLE : COMBINED BALER AND RAKE APPARATUS

Grp./A.U. : 3671  
Examiner : M. Petravick  
Conf. No. : 5983  
Docket No. : P02248US2

THE DOCUMENTS ACCOMPANYING THIS FACSIMILE TRANSMITTAL COVER SHEET CONTAIN INFORMATION FROM THE LAW FIRM OF MCKEE, VOORHEES & SEASE WHICH MAY BE CONFIDENTIAL AND/OR LEGALLY PRIVILEGED. THE DOCUMENTS ARE INTENDED ONLY FOR THE PERSONAL AND CONFIDENTIAL USE OF THE ADDRESSEE IDENTIFIED ABOVE. IF YOU ARE NOT THE INTENDED RECIPIENT OR AN AGENT RESPONSIBLE FOR DELIVERING THESE DOCUMENTS TO THE INTENDED RECIPIENT, YOU ARE HEREBY NOTIFIED THAT ANY REVIEW, DISCLOSURE, COPYING, DISTRIBUTION OR THE TAKING OF ANY ACTION IN RELIANCE ON THE CONTENTS OF THIS TRANSMITTED INFORMATION IS STRICTLY PROHIBITED. IF YOU HAVE RECEIVED THIS FACSIMILE IN ERROR, PLEASE IMMEDIATELY NOTIFY THIS FIRM SO THAT WE CAN ARRANGE FOR THE RETURN OF THE ORIGINAL DOCUMENTS TO US. THANK YOU.

Attorney Docket No: P02248US2

PATENT

#11 / C (20)  
Appeal



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

IN RE APPLICATION OF: Mark W. Paulson  
SER. NO.: 10/037,113  
FILED: October 22, 2001  
FOR: COMBINED BALER AND RAKE APPARATUS  
Group Art Unit: 3671  
Examiner: M. Petravick

Commissioner for Patents  
Washington, D.C. 20231

RECEIVED

NOV 07 2003

GROUP 3600

**ATTENTION: Board of Patent Appeals and Interferences**

**APPELLANT'S BRIEF (37 C.F.R. § 192)**

Sir:

This brief is in furtherance of the Notice of Appeal filed in this case on June 30, 2003.

The fees required under § 1.17, and any required petition for extension of time for filing this brief and fees therefore, are dealt with in the accompanying TRANSMITTAL OF APPEAL BRIEF.

This brief, and all attachments indicated therein, is transmitted in triplicate. (37 C.F.R. § 1.192(a))

---

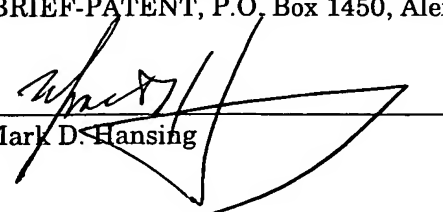
**CERTIFICATE OF MAILING (37 C.F.R. § 1.8(a))**

I hereby certify that this document and the documents referred to as enclosed therein are being deposited with the United States Postal Service as First Class mail in an envelope addressed to: Commissioner for Patents, Mail Code APPEAL BRIEF-PATENT, P.O. Box 1450, Alexandria, VA 22313-1450, on this 30<sup>th</sup> day of October, 2003.

11/06/2003 AWONDAF1 00000003 10037113

01 FC:2402

165.00 0P

  
Mark D. Hansing

This brief contains these items under the following headings, and in the order set forth below (37 C.F.R. § 1.192(c)):

<u>HEADING</u>	<u>PG. #</u>
I REAL PARTY IN INTEREST .....	3
II RELATED APPEALS AND INTERFERENCES .....	3
III STATUS OF CLAIMS (37 C.F.R. § 1.192(c)(3)) .....	3
A. Total Number of Claims in Application.....	3
B. Status of All the Claims .....	3
C. Claims on Appeal .....	4
IV STATUS OF AMENDMENTS (37 C.F.R. § 1.192(c)(4)) .....	4
V SUMMARY OF INVENTION (37 C.F.R. § 1.192(c)(5)) .....	4
VI ISSUES (37 C.F.R. § 1.192(c)(6)) .....	13
VII GROUPING OF CLAIMS (37 C.F.R. § 1.192(c)(7)) .....	14
VIII ARGUMENTS .....	15
A. ARGUMENTS -- REJECTIONS BASED ON SECTION 112 -- CLAIMS 3 AND 31-36.....	15
B. ARGUMENTS -- REJECTION UNDER 35 U.S.C. 103 -- CLAIMS 1, 4-5, 8-20, 22-25, and 28-38 .....	17
C. ARGUMENTS -- REJECTIONS UNDER 35 U.S.C. 103(a) -- CLAIMS 6 and 7 .....	28
D. ARGUMENTS -- REJECTIONS UNDER 35 U.S.C. 103(a) -- CLAIM 21 .....	28
E. ARGUMENTS -- REJECTIONS UNDER 35 U.S.C. 103(a) -- CLAIMS 26-27 .....	28
IX. CONCLUSION .....	29
X. APPENDIX OF CLAIMS INVOLVED IN THE APPEAL.....	30

The final page of this brief bears the practitioner's signature. Exhibits referenced herein are attached after the final page of the brief

## **I REAL PARTY IN INTEREST**

The real party in interest in this appeal is the party named in the caption of this brief.

## **II RELATED APPEALS AND INTERFERENCES**

With respect to other appeals or interferences that will directly affect, or be directly affected by, or have a bearing on the Board's decision in this appeal -- there are no such appeals or interferences.

## **III STATUS OF CLAIMS (37 C.F.R. § 1.192(c)(3))**

The status of the claims in this application are:

### ***A. Total Number of Claims in Application***

Claims in the application are: 37 total claims in the application, not including claim 2, which currently stands canceled.

### ***B. Status of All the Claims***

1. Claims cancelled: Claim 2.<sup>1</sup>
2. Claims withdrawn from consideration but not cancelled: None.
3. Claims pending: 1, 3-38.<sup>2</sup>

---

<sup>1</sup> On September 2, 2003, Applicant filed an Amendment After Final which was not entered. It attempted to cancel claims 1, 3-5, 8, 13-15, 19, 25, and 28-30 and amend certain claims to eliminate the Section 112 rejections and reduce the number of claims and issues on appeal. It was not entered on the alleged grounds it raised new issues.

<sup>2</sup> See Footnote 1.

4. Claims allowed: None.<sup>3</sup>
5. Claims rejected: 1, 3-38.

***C. Claims on Appeal***

The claims on appeal are: 1, 3-38.<sup>4</sup>

**IV STATUS OF AMENDMENTS (37 C.F.R. § 1.192(c)(4))**

All amendments presented by Applicant have been entered, except for the amendment filed September 2, 2003, a copy of which is attached to this brief at **Exhibit A**. This Amendment attempts to cancel claims and resolve Section 112 rejections, to simplify the issues in this appeal.

**V SUMMARY OF INVENTION (37 C.F.R. § 1.192(c)(5))**

A summary of the invention is now given to set the context of the invention. As obviousness is the major issue in this appeal, a full understanding of the background of the invention is very relevant. *See, e.g., In re Wright*, 848 F.2d 1216, 6 USPQ2d 1959 (Fed. Cir. 1988) (consideration of the problem facing the inventor is an element of perceptive analysis of whether the invention as a whole would have been obvious to a person of ordinary skill).

---

<sup>3</sup> Independent claim 31 had been indicated to appear to define over the prior art (see Interview Summary of paper number 4, dated December 5, 2002), but that finding was apparently withdrawn in the final rejection mailed Jan. 29, 2003.

<sup>4</sup> See Footnote 1.

Applicant's claimed invention was born, to a large extent, out of necessity. State of the art practices are of doubtful economic viability and have functional deficiencies. *See, e.g.*, Applicant's spec., pg. 2, ¶ 1.

After a field corn is harvested, partial stalks and other plant remnants remain in the field. Corn pickers or combines primarily strip the ears of corn from the plants and process them, leaving the stalks and stubble in the field. But, as one can visualize, the stalks and stubble are not considered highly valuable, are not large in volume, and are difficult to handle.

One way to dispose of this residual material is to allow animals to hopefully eat much of it. *See, e.g.*, Applicant's spec., pg. 3, ¶ 4. Another way is to mow and/or disc it into the soil. *See, e.g.*, Applicant's spec., pg. 4, first partial ¶. However, it may not completely degrade and might interrupt next season's planting.

Frugality, spurred by the current dismal economic agricultural condition<sup>5</sup>, has led some farmers to try to gather stalks and stubble. One use is as bedding for livestock. This might involve one pass through the field to mow the stalks and stubble, another pass to rake the rather sparse material into windrows, and then a third pass to bale the material. *See, e.g.*, Applicant's spec., pg. 2, ¶ 4. Thereafter, the bales must be collected and transported for use. While such recovery and use of corn stubble can save purchase of bedding, the amount of time, fuel, and equipment for several passes through the field rarely is justified. Cost of fuel alone can make it economically impractical.

---

<sup>5</sup> It is respectfully submitted that judicial notice can be taken of the plight of family farmers in the United States, including that the price of a bushel of field corn is today roughly the same as it was in the 1960's.

One approach to reduce cost of collecting this residual trash from the field has been to just run a baler through the field. *See, e.g.*, Applicant's spec., pg. 2, ¶ 5 to top of pg. 3. This avoids the fuel and time of multiple passes through the field to mow and then rake the material. This has become more widely done since the advent of large bale balers, which produce fewer bales per area than prior balers and, thus, collection and transportation (using large equipment) is more efficient. However, large bale balers are primarily designed to bale crops such as hay, where a substantial volume of mown hay is taken up by the baler to produce the bales. Normally, such balers have about a five foot intake width—about the width of a windrow of hay. This width covers only about two or three rows of corn. *Id.* While this allows avoid of the cost and labor of multiple passes through the field to collect the stalks and stubble, economic viability is still a substantial question because you are collecting the material from only two or three rows at a time. As fuel prices increase and farm commodity prices stay stagnant, it is hard to economically justify using the amount of fuel (not to mention wear and tear and time of equipment and labor) to make five-foot wide passes through the residual stubble, when the value of the collected stubble on the farm is relatively small. *Id.* Also, large bale balers are not adapted to effectively pick up stalks and stubble from the ground, and therefore can leave a substantial amount in the field; also an inefficiency. *See, e.g.*, Applicant's spec., pg. 4, ¶ 1.

Recently, chemical companies have developed methods that recover chemicals from corn stalks and stubble that can be used in such things as creating plastics. This has made it more attractive to "harvest" the stalks and stubble. Thus, especially in times of economic depression

for farmers, some have tried to generate additional income by "harvesting" stalks and stubble and selling them to such chemical companies. *See, e.g., Applicant's spec., pg. 3, ¶ 2.* However, the price paid by the chemical companies hardly justifies the fuel cost and labor time to harvest such materials if multiple passes are required through the field, or even if one pass with a large bale baler is made because it collects only two or three rows a pass through the field.

Therefore, the context of the problem Applicant was trying to solve was as follows. How could one make the baling of residual plant residue economically and functionally viable? *See, e.g., Applicant's spec., pg. 3, ¶ 3.*

After much thought, experimentation, and trial and error, a solution was found in creating a large bale baler attachment in the form of:

- a. a relatively short frame added between the baler hitch and the baler (extending the PTO drive shaft between tractor and baler through the frame),
- b. on the frame two foldable wings, raiseable and lowerable from the operator's position on the tractor, each with a pair or more of ground-contacting, non-powered wheel rakes,
- c. so that when folded out, the sets of wheel rakes covered over twice as much ground per pass through the field as just the baler itself, which substantially decreased the amount of time and fuel needed to recover the material from a given area.



This combination produced the obvious benefit of better economy and efficiency. It also produced at least the following more subtle benefits:

- d. Did not substantially affect the handling or maneuverability of the combination in the field. The inventor tried and specifically eschewed any type of addition that greatly increased the length of tractor and baler because of difficulty in maneuvering, especially when turning around at the end of rows (near fences, ditches, etc.). The inventor rejected hitching a separate rake implement between tractor and bailer, as some have tried, because of this problem (and particularly the impossibility of easily backing up with two separate implements attached).
- e. Effectively increased the intake width of the baler. The increased intake width not only has been found to reduce fuel costs because more ground is covered, it has also been found to produce better bales. The sparseness of stalks and stubble tended to make sparse or uneven large bales. The increased intake of Applicant's invention provides the right amount of material to the baler to produce efficient, well-made bales.
- f. Did not create problems by being overly wide. Conversely, the inventor eschewed wider intake because he found substantially wider intake tended to overload the sides of the bale, making them uneven and creating greater risk than the binding of the bales would fail or be deficient.<sup>6</sup>

---

<sup>6</sup> The wide is not huge, including for reasons explained at Applicant's specification pg. 20, ¶ 1.

- g. Almost instant, on-the-fly conversion between modes. The ability to raise or lower the wheel rakes from the operator seat allows quick and easy implementation of the rakes, when needed, and deactivation, when not needed. For example, the farmer only has to hook up to one implement, once the rake attachment is fixed to the baler. And, using the tractor's hydraulic system, the rakes can be raised or folded out of the way for storage, transport, or even use of the baler without the rakes (which might be beneficial if stalks and stubble are of high density, or if normal use of the baler is desired), without having to get off the tractor or detach anything. By other example, if there is a tight turn at the end of the row, or if the intake to the baler is at too high a rate, the operator can simply throw a switch or lever from the tractor seat to instantly raise one or both wings.
- h. The wheel rakes improved recovery of stalks and stubble. Ground contacting, non-powered wheel rakes were found to not only better follow the ground (and thus not miss material in depressions in the ground), but the operation of the tines of the wheel rakes have been found to do a good job of digging out trash laying on the ground and shearing and gathering stalks. The result is better recovery of stalks and stubble which in turn results in improved economy of the system. This is in distinction to powered rakes or rakes that do not contact the ground. They would not dig down and pick up stubble on the ground. They also tend not to follow the terrain and would skip stubble in depressions in the ground.

- i. The tractor has no modification. The motive means (e.g. tractor) can be hooked up to the Applicant's invention to be its motive and operational force, and then easily and quickly detached for other work, without carrying the invention or components thereof that could compromise other work. Conversely, the rake attachment of the present invention can be disassembled from the baler with minimum work, but is rigidly and robustly connectable to the baler to act in some ways as a unit for better maneuverability (again, such as at the end of rows or in tight corners), while retaining the ability to also act as a separate device (e.g. it can be actuated from the tractor to lift its wings to an up, out of the way stored position).
- j. Non-powered wheel rakes avoid use of energy and mechanical complexity. Many rakes (e.g. powered rakes) exist which require a separate power source (e.g. hydraulic, mechanical, electrical) and/or linkages or other structure to facilitate mechanical rotation. Applicant's invention uses contact with the ground by the rakes, as moved along the ground, to rotate the wheel rakes. Therefore, substantial extra fuel and energy is not required, nor is added mechanical complexity and cost of motors and connections.

The claimed invention captures this combination of structure or method steps. Applicant found a solution to the long-standing problem of how to make recovery of stalks and stubble

economically feasible while at the same time practical from a functional standpoint (e.g. the needs of good maneuverability and on-the-fly control).

Applicant's claims describe a combination of limitations for the solution that follow the above discussion. For example, Applicant's independent claim 1 defines:

1. An attachment to a large bale baler. It is not an implement hitched between tractor and baler. It has a frame connectable (e.g. hitchable) to a motive means (e.g. tractor), but attached to the baler. It is not an implement used separately from the baler. The attachment, as claimed in claim 1, includes the following limitations.
2. Ground-driven, non-powered wheel rakes which are moveable between a lateral gathering (working) position and a raised stored position. These are specific types of rakes—independent wheel rakes, that have tines that extend radially to form a wheel-like structure. This allows them to be ground-driven, if desired, and to each independently follow the ground. They dig slightly into the ground and pick up material that might be on or even partially in the ground (as opposed to off-the-ground rakes that would not). And, if used in a ground-driven mode, they are non-powered, which saves energy costs and equipment and maintenance costs.
3. An actuator to move the wheel rake between lateral working position and raised stored position. This allows the rake to be raised mechanically and

remotely (e.g. by the farmer from the tractor seat) so that the farmer can lift the rake, on-the-fly, when turning near fences or corners, or to avoid a rock or tree, or if simply wanting to reduce the intake to the baler. It can also quickly be converted to a narrow implement, e.g., to allow it to squeeze through a gate, be transported on the road, or stored in a building. It does not require the farmer to leave the tractor seat, climb down, and manually move the rakes to a storage position.

4. A suspension to allow the wheel rake to follow the ground. Again, this is used to help the wheel rake follow the terrain to pick up material along the ground, even if there are depressions. Conversely, it helps the wheel rake absorb forces if there is a rock or bump on the ground, so that the ground-contacting wheel rake is protected from damage.

Independent claims 25, 29, 31, 35, and 37 all contain similar limitations. Therefore, it is respectfully submitted that the claims on appeal include limitations which, in combination, address the problems and deficiencies in the state of the art described in Applicant's specification. Applicant developed, by trial and error and creativity, what he believes is a novel and non-obvious improvement over the state of the art.

As stated in Applicant's specification, there have been a large number of types of rakes available in the marketplace. *See, e.g.*, Applicant's spec., pg. 5, ¶ 2. However, motivation for the

invention was not putting a rake with a large bale baler<sup>7</sup>; it was how to better, both functionally and economically, recover stalks and stubble. It required more than just raking material so increase intake to the baler. As set forth in the claims, it was a specific combination of limitations which Applicant submits to be a new and non-obvious combination from the teachings of the state of the art.

Therefore, Applicants' claimed invention addresses the deficiencies he saw in the state of the art. As will be described below, Group I claims describe a rake attachment adapted for connection between a large bale baler and a tractor. Group II claims describe a structure similar to Group I independent claims but in further combination with a large bale baler and a tractor. Group III claims describe methods of recovery of material from the field.

## **VI ISSUES (37 C.F.R. § 1.192(c)(6))**

- A. WHETHER CLAIMS 31-36 VIOLATE 35 U.S.C. SECTION 112.
- B. WHETHER CLAIMS 1, 4-5, 8-20, 22-25, and 28-38 ARE OBVIOUS UNDER 35 U.S.C. SECTION 103(a).
- C. WHETHER CLAIMS 6-7 ARE OBVIOUS UNDER 35 U.S.C. 103(a).
- D. WHETHER CLAIMS 9 AND 21 ARE OBVIOUS UNDER 35 U.S.C. 103(a).
- E. WHETHER CLAIMS 10 AND 26-27 ARE OBVIOUS UNDER 35 U.S.C. 103(a).

---

<sup>7</sup> As clear from the application itself, as well as the art of record in the application, others have used rakes to collect mown hay before baling. Others have incorporated rakes on the tractor or between the tractor and a baler to collect hay for baling.

## **VII GROUPING OF CLAIMS (37 C.F.R. § 1.192(c)(7))**

There is no precise grouping of the claims. However, for purposes of general discussion of the claims relative to the issues on appeal, it may be helpful to consider the following groupings:

Group I Claims 1, 3-24 and 31-34. These claims all describe a "rake attachment" adapted for connection between a large bale baler and a tractor. They do not explicitly include the baler or tractor (except claim 24 a dependent claim).

Group II Claims 25-28 and 35-36. These claims include the baler.

Group III Claims 29-30 and 37-38. These are method claims.

However, it is submitted that Groups I and II likely rise and fall together. They are intended to have similar limitations regarding the wheel rakes. Method claims of Group III have the advantage of 35 U.S.C. Sections 100 and 101 over the apparatus claims, and therefore do not necessarily rise or fall with the apparatus claims. On the other hand, the method claims of Group III also have common concepts regarding how to recover or harvest material.

In this brief the above defined groups of claims will be generally referred to as "Group I", "Group II", or "Group III", for convenience.

## VIII ARGUMENTS

### A. *ARGUMENTS -- REJECTIONS BASED ON SECTION 112 – CLAIMS 3 AND 31-36*

Certain phrases in claim 31 have been rejected under 35 U.S.C. Section 112 as lacking support in the written description of Applicant's original application. These rejections are respectfully traversed.

Each of the objectionable phrases consists of utilization of an approximate measurement, *e.g.* "approximately six feet", "at least thirty six inches", "less than 8 feet wide", and "at least two feet off the ground". While it is agreed that none of the specific measures are explicitly mentioned in Applicant's specification, it is respectfully submitted that the test for written description under Section 112, second paragraph, is whether the specification, as interpreted by one skilled in the art, evidences that the inventor was in possession of the claimed invention at the time of filing of the application. *See, e.g., Ex parte Parks*, 30 USPQ2d 1234 (B.P.A.I. 1994); *Vas-Cath v. Mahurkar*, 935 F.2d 1555 (Fed. Cir. 1991). Therefore, identity in words in the claim and words in the specification is not the test. *Id.*

The final rejection, pages 2-3 points out where examples of some of the measures can be found. The language describing the frame as "less than six feet in length" is accurate regarding a frame which, in the exemplary embodiment, has frame members about three feet long. The language describing the wheels of the wheel rakes as "at least thirty six inches" is accurate regarding exemplary wheels of forty eight inches. A combined rake attachment, when folded up



for storage, of "less than 8 feet wide" is accurate regarding an exemplary embodiment having arms that fold up to on the order of the width of the baler.

Therefore, one skilled in the art can explicitly read of examples of these claimed measurements that fall within their definitions. But further, one skilled in the art appreciates that dimensions can vary. The use of "at least", "approximately", "less than", are clearly limitations affirming some range in these measures, as would be expected by one skilled in the art.

The limitation of "at least two feet off the ground" is similar in that once skilled in the art, appreciating that the wheels of the wheel rake in the exemplary embodiment are 48 inches in diameter (or two feet in radius), that the center of the wheel is underneath the arm of the rake attachment, that when in the working or down position the arm is higher than two feet off the ground, that the pivot point of the arm is along the axis of the arm, and that the arm can be raised almost vertically, would appreciate that when raised the wheel, by simply geometry, would be the wheels are raised at least two feet off the ground when the arm is pivoted upwardly.

The burden is on the PTO of providing evidence sufficient to form a *prima facie* case why persons skilled in the art would not recognize in the disclosure a description of the invention defined by these claims. Use of the terms "approximately", "at least", and "less than" are submitted to allow one skilled in the art to understand from Applicant's specification that these general dimensions are within the invention. *See, e.g., In re Wertheim*, 541 F.2d 257 (C.C.P.A. 1976).

Therefore, it is respectfully submitted that claim 31 meets the test of Section 112, second paragraph.<sup>8</sup> 15-

Regarding claim 3, Applicant is willing will amend the claim to change its dependency to claim 1 to remedy this issue.<sup>9</sup> Applicant respectfully requests entry of its September 2, 2003 amendment, at least for this purpose, to eliminate an obvious, unintentional error in dependency.

**B. ARGUMENTS -- REJECTION UNDER 35 U.S.C. 103 -- CLAIMS 1, 4-5, 8-20, 22-25, and 28-38**

**1. Overview of Rejection**

The Final Rejection holds these claims obvious based on Lewis U.S. Patent 5,404,702 ("Lewis"), as the primary reference, in view of Sligter U.S. Patent 4,183,198 ("Sligter") as the secondary reference.

It is respectfully submitted that this rejection does not establish a *prima facie* case of obviousness under Section 103 for at least two primary reasons.

---

<sup>8</sup> If Applicant's Amendment After Final filed September 2, 2003 is entered, it is believed it will obviate these Section 112 rejections.

<sup>9</sup> See Footnote 5.

## 2. First Grounds for Non-obviousness

First, page 4, numbered paragraph 7 of the Final Rejection describes the primary reference Lewis as including, *inter alia*:

"- an actuator (lift mechanism 10, Columns <sup>4</sup>4, lines 7-9) operably connected between the frame and rake arm for mowing [sic: moving] the rakes between a working and stored position".

This is erroneous. It is true that Lewis does have a "lift mechanism 10" (*see* Lewis Fig. 2). However, its function is lift the powered, non-ground contacting rakes after they have been manually moved from their laterally extended working position (Lewis Fig. 1) to an inwardly folded position (Lewis Fig. 2). Once in the folded-in position, the farmer uses chains 54 and 55 to tie the long powered rakes to Y-shaped lift arm 61. The hydraulic lift mechanism would lift the rakes to a storage position (hanging by the chains) and safety bar 64 is manually set in place. Lewis col. 8, lines 59-68.

In contrast, Applicant's claim 1 states:

|| "an actuator operably connected between the frame and the wheel rake allowing selective actuation of the wheel rake **between working and stored positions**"

(emphasis added). The limitation states that mechanical, not manual power, can actuate the rake directly between working position (extended) and stored position (raised).

Lewis does not disclose an actuator adapted to move a rake "between working and stored positions". Lewis only has an actuator to vertically lift the rakes after the farmer has manually moved them from their working position inwardly to near the frame. As stated at Lewis, col. 5, lines 7-9:

"The lift mechanism is used to raise the rakes from the ground to facilitate transportation of the baler/raker."

With Lewis, the farmer must physically get down from the tractor, walk to one side of the implement, dislodge boom 44, roll rake 36 inward towards the frame, and hook chain 55 between rake 36 and lift arm 61. The farmer then has to walk completely around to the other side and do the same for rake 38. After this manual work, and only then, can the farmer use hydraulic power to lift the rakes off the ground. They are raised slightly off the ground enough to lift the wheels at the ends of the rakes off the ground. Lewis, col. 8, lines 20-25. The rakes are not folded up. As can be seen from its Figures, the Lewis rakes are substantially long. This takes substantial time and effort from the farmer. Lewis, col. 5, lines 10. *See also* Lewis col. 8, lines 20-68, which describes all the manual actions the farmer must take to move the rakes between stored and working positions, or *vice versa* (including connecting lift chains, placing or removing a safety bar, disengaging or engaging booms, etc.)

Therefore, the Final Rejection incorrectly has interpreted the disclosure of Lewis. The complete lack of disclosure or teaching of the explicit limitation in Applicant's claim 1 of an actuator to move a rake between working and stored position prevents a finding of obviousness. A *prima facie* case of obviousness under Section 103 requires that the combination of references show or suggest the claimed invention to one of ordinary skill in the art. *In re Lalu*, 747 F.2d 703 (Fed. Cir. 1984); *In re Fritch*, 972 F.2d 1260 (Fed. Cir. 1992). The erroneous interpretation in the Final Rejection cannot support such a rejection. As shown, Lewis lacks an explicit limitation of claim 1.

The secondary reference, Sligter, does not remedy this gap in teaching. Sligter discloses a wheel rake that is hitchable to a tractor. No disclosure, suggestion, or teaching was found in Sligter of being an attachment to a large bale baler (or to anything else). And, it has no disclosure or teaching of an actuator to mechanically move its rakes between working and stored positions. Therefore, Applicant contests that there is any suggestion that Lewis and Sligter be combined, other than through hindsight gained by Applicant's specification. But even if combined, a specific limitation on Applicant's claim 1 would be missing.

Additionally, the missing element is important to the problem the inventor addressed and the motivation behind his invention which, as previously stated, is relevant to the question of obviousness. As discussed earlier, it allows on-the-fly actuation of the rakes between working and stored position without the farmer having to stop, dismount the tractor, manually manipulate the rakes, and return to the tractor to continue. But further, it allows better maneuverability in, to, and from the field, and more flexibility to make the collection of stalks and stubble more efficient and thus potentially ecumenically viable.

### **3. Second Grounds for Non-obviousness**

The Final Rejection admits that Lewis does not teach the limitations in Applicant's claim 1 of "ground-driven, non-powered wheel rake", stating at page 5, first partial paragraph:

"In the detailed description Lewis describes attaching powered wheel rakes to the arms instead of non-powered, wheel rakes as claimed....Therefore, even though Lewis does not specifically describe in detail attaching non-powered, wheel rakes to the frame, Lewis teaches that any type of hay rake can be attached to the frame."

The Final Rejection then concludes:

"It would have been obvious to one having ordinary skill in the art at the time the invention was made to make the rakes of Lewis non-powered wheel rakes as in Sligter since Lewis suggest that any type of hay rakes [sic: may be used]"

It is respectfully submitted that this interpretation of Lewis is also erroneous, and that a correct interpretation of Lewis results in a lack of teaching or suggestion of another material limitation of Applicant's claim 1 such that a *prima facie* case of obviousness is not supported.

The Final Rejection cites to Lewis col. 4, lines 4-10, which state:

"It is also anticipated that the "base" or extension frame will be manufactured and generally sold without windrow rakes. This is because most farmers will have hay rakes that can be attached to the extension frame and they will want to use existing equipment. On the other hand, a manufacturer can sell a complete system."

It is respectfully submitted that this statement does not support the Examiner's conclusion that Lewis teaches any type of rake could be used with the Lewis device for at least the following reasons:

1. The cited language does not say what the Examiner relies on it for. It does not say any type of rake could be used. There is not literal, unambiguous language to that effect.
2. There is no basis to extrapolate the language to the Examiner's interpretation. As acknowledged by the Examiner, the only rakes specifically described in Lewis are powered rakes, and they are not wheel rakes. The Lewis drawings only illustrate, diagrammatically, the very long, hydraulically rotated, bar rakes used for wind

rowing hay in places such as Texas (the address of Lewis on the patent). Lewis talks about these "power rakes" as well known in the art, *see* col. 1, lines 29-68. Lewis talks about powered rakes in its "Summary of the Invention". Col. 2, lines 45-50 and 56-68; col. 3, lines 15-18 and 30. Lewis refers to the Figures when first describing his preferred embodiment, *see* col. 3, line 65 to col. 4, lines 1-5. Lewis then leaves no doubt at col. 5, line 40 to col. 6, line 14; stating the rakes are "standard conventional units", are "driven by their respective hydraulic motors, 7 and 8, which are powered by the tractor hydraulic system"; "[t]he booms and associated power rakes are standard farm implement components and may vary in their specific designs."

3. The context of the language relied upon by the Examiner does not support the Examiner's interpretation. Lewis col. 4, lines 4-11 immediately follows both (a) a description of the state of the art and its power rakes and (b) a reference to the Figures of Lewis. Those rakes are "windrow rakes (shown in FIG. 1) and various hydraulic and electric control lines linking devices on the frame to the tractor and devices on the baler to the tractor (shown in FIG. 4)." Lewis, col. 3, line 68 to col. 4, line 4.<sup>10</sup> Thus, the language relied upon by the Examiner at col. 4, lines 5-11 is not in the context of what rakes may be used in the preferred embodiment (again the Examiner admits they are powered rakes and not wheel rakes), but rather in

the context that a farmer could (a) purchase the Lewis device with such power rakes attached as original equipment or (b) purchase everything but the power rakes if the farmer already had the power rakes.

4. The Lewis specification does not support the Examiner's interpretation. There is no disclosure in Lewis of how one would attach and operate anything but the "standard" power rakes it shows and describes. For example, Lewis explains how its power rakes attach to the frame, are powered (and are connected to power), and how they are put into operating position or put into stored position. It describes how the rakes' height can be adjusted above the ground for use. There is absolutely no disclosure of how any different type of rake could be implemented with the Lewis frame and other components.
5. The Lewis drawings show its rakes are much different than wheel rakes. Note the long, single axles described as containing "driven tines". Lewis col. 5, lines 50-60. These axles rest on small wheels at their distal ends. *Id.* The axles are rotated by hydraulic motors. Such a long integrated unit can not follow the contours of the ground like wheel rakes.

It is therefore respectfully submitted that the Examiner's conclusion is erroneous and not supportable. If Lewis mentions only power rakes, describes its frame and associated components

---

<sup>10</sup> Note also that Lewis, col. 1, lines 29-33, specifically describes the relevant prior art is solely power rakes: "The prior art for combination raker/baler breaks down into two distinct approaches; one, attachment of the power rake to the baler and, two, attachment of the power rake to the prime mover or tractor."



in the context of power rakes, and does not provide any enabling basis for substituting other types of rakes, it is erroneous to interpret the above clause to encompass all rakes, including wheel rakes. The statement cited by the Examiner, correctly interpreted, is only informing the reader that the frame (with "various hydraulic and electric control lines linking devices on the frame to the tractor and devices on the baler to the tractor – col. 4, lines 1-3) could be made and sold separately and farmers could add their own power rakes, or the frame etc. could be sold with power rakes installed.

The Federal Circuit has held that identification of prior art statements that appear to suggest claimed limitation does not establish a *prima facie* case of obviousness without finding as to specific understanding or principle within knowledge of skilled artisan that would have motivated one with no knowledge of invention to make claimed combination. *In re Kotzab*, 55 USPQ2d 1313 (Fed. Cir. 2000). There is no such understanding or principle in Lewis.

To rely on a reference for a teaching, it must convey the teaching the PTO alleges it conveys. There is absolutely no teaching of how to make and use wheel rakes with the frame of Lewis. How would they be attached? How would they be raised and lowered? How would they be adjusted? The Examiner's citation to Sligter, which discloses an example of wheel rakes, does not help because Sligter discloses a pivot attachment at opposed ends of a cross bar. There is no disclosure or teaching of combination with the long, narrow frame of Lewis.

Therefore, it is submitted that the erroneous interpretation of Lewis has caused an erroneous obviousness rejection and should be reversed on that ground alone. The teaching of Lewis is limited to power rakes. Applicant's independent claims require a non-powered rake.

The absence of any teaching of this limitation in Lewis can not be remedied by the citation to Sligter. As discussed earlier, no where in Sligter was there found any teaching or suggestion of integrating its non-powered wheel rakes with any other function, let alone a large bale baler, as required in Applicant's claim 1. Nor is there any teaching in Sligter of other material limitations of Applicant's claim 1, including an actuator to raise and lower rakes on-the-fly.

The only articulated basis for combination of Sligter with Lewis is the allegation col. 4, lines 4-11 of Lewis teach those of ordinary skill in the art that literally any rake could be substituted for the powered bar rakes actually shown and described in Lewis. It is respectfully submitted that this interpretation is erroneous and negates a *prima facie* case of obviousness.

#### **4. Other Reasons for a Finding of Non-Obviousness**

Notwithstanding the above, the obviousness rejection does not present a *prima facie* obviousness case for additional reasons. To do so, the references must give a reason, suggestion, or motivation to combine or modify them in a manner that appears to show or suggest the claimed invention to one of ordinary skill in the art. *See, In re Lalu*, 747 F.2d 703 (Fed. Cir. 1984); *In re Fritch*, 972 F.2d 1260 (Fed. Cir. 1992), *supra*.

The basis for such analysis is the factual framework of *Graham v. Deere*, 383 U.S. 1 (1966); namely (a) what is the state of the art? (what is the relevant or closest prior art to consider?), (b) what is the level of ordinary skill in the art? (from what viewpoint do we consider what is or is not obvious?) and (c) what differences exist between the prior art and the claims at issue? (how close is the prior art to the claimed idea?)

The record reveals the following:

1. Wheel rakes are well known for years as a type of rake. *See* cited Sligter reference.
2. In the context of baling hay, large bale balers in certain circumstances could benefit from increasing the input to the baler, and one way is by adding very long, independently powered rotating bar rakes in front of a baler to rake material towards the baler intake. *See* cited Lewis reference.

But none of references, either singly or in combination, discloses, teaches, or suggests Applicant's solution—a small frame rigidly connected to baler and hitchable to tractor, where the frame carries ground-contacting, non-powered wheel rakes raiseable and lowerable by actuation from the tractor seat. There is no showing that either (a) Lewis or Sligter suggest their combination and (b) even if their teachings are combined, that the Applicant's claimed invention is suggested. Thus, under *Graham v. Deere*, it is submitted that a conclusion of obviousness is not supported.

The state of the art, from the 1980 Sligter patent, to the 1995 Lewis patent, describes and suggests a wide variety of things, but not that of Applicant's claims.

One of ordinary skill in this art is not at a high skill level. The inventor's own education level is secondary school and substantial farming experience, coupled with substantial experience trying to bale stalks and stubble. It can be seen that many of the references of record indicate issuance to individuals, and not companies.<sup>11</sup> The presumed person of ordinary skill in the art, looking for a solution to the deficiencies in the art, had wheel rakes for almost two decades without any indication of Applicant's claimed invention. Lewis was issued several years before the filing of Applicant's application. There is no motivation to attach relatively small pairs of wheel rakes on a relatively short frame to the long complex frame of Lewis. And Lewis suggests ways of improving the use of power rakes between tractor and baler. It teaches away from Applicant's solution. Lewis is power hungry, complex, and non-ground driven. It would not dig and pick up stalks and stubble, and has no suggestion of use in that manner.

Therefore, though subtle, the differences between the claims and the cited references are substantial. And the combination of Lewis and Sligter does not suggest Applicant's claimed combination to one of ordinary skill in the art.

---

<sup>11</sup> Factors pertinent to level of skill include inventor's educational background, kinds of problems confronted in the art, solutions found previously, level of sophistication of the technology, and education level of active workers in the field. *Orthopedic Equipment Co. Inc. v. All Orthopedic Appliances, Inc.*, 217 USPQ 1281 (Fed. Cir. 1983).

***C. ARGUMENTS -- REJECTIONS UNDER 35 U.S.C. 103(a) -- CLAIMS 6 and 7***

Claims 6 and 7 have been rejected under § 103 as obvious based again on Lewis as primary reference and Sligter as a secondary reference, but further on Kelderman U.S. Patent 5,155,986. Kelderman is cited as showing it is well known to secure two items together with bolts. Therefore, Kelderman does not fill any gap shown above to exist between the Lewis and Sligter references and Applicants claims, and claims 6 and 7, dependent from independent claim 1, should be found allowable for at least the same reasons expressed in support of the patentability of independent claim 1.

***D. ARGUMENTS -- REJECTIONS UNDER 35 U.S.C. 103(a) -- CLAIM 21***

Claim 21 has been rejected under § 103 as obvious based again on Lewis as primary reference and Sligter as a secondary reference, but further on Kuehn U.S. Patent 4,947,631. Kuehn is cited as showing it is well known to adjust the height of wheel rakes. Therefore, Kuehn does not fill any gap shown above to exist between the Lewis and Sligter references and Applicants claims, and claim 21, dependent from independent claim 1, should be found allowable for at least the same reasons expressed in support of the patentability of independent claim 1.

***E. ARGUMENTS -- REJECTIONS UNDER 35 U.S.C. 103(a) -- CLAIMS 26-27***

Claims 26 and 27 have been rejected under § 103 as obvious based again on Lewis as primary reference and Sligter as a secondary reference, but further on Trenkamp U.S. Patent

5,052,170. Trenkamp is cited as showing it is well known to attach a shredder to a baler.

Therefore, Trenkamp does not fill any gap shown above to exist between the Lewis and Sligter references and Applicants claims, and claims 26 and 27, dependent from independent claim 25, should be found allowable for at least the same reasons expressed in support of the patentability of independent claim 25, which has similar limitations to that of independent claim 1, but further specifically claims combination with a baler.

## IX. CONCLUSION

It is respectfully submitted that Applicant's claimed invention, taken as a whole, is not obvious because the Final Rejection incorrectly interprets the teachings of the cited art. The only teaching of the claimed invention is with hindsight gained by Applicant's specification and claims, which can not be used to fill any defects in the teachings of the references. The rejections are based on an argument it should be obvious to try a combination of Lewis with wheel rakes of Sligter. This is not a proper basis for obviousness. *See, e.g., Jones v. Hardy*, 727 F.2d 1524 (Fed. Cir. 1984).<sup>12</sup>

It is also respectfully submitted that the other rejections have been addressed and/or remedied. It is therefore respectfully requested that the Final Rejection be reversed and the application returned to the Examining Attorney for allowance.

---

<sup>12</sup> The Applicant's invention is not overtly technologically complex. However, as the Board stated in *Jones v. Hardy*, *supra*: "We recognize that the subject matter of the claimed invention is quite simple. However, as argued by appellant, simplicity is not synonymous with obviousness." It is respectfully submitted that the facts in this case likewise do not support a conclusion of obviousness.

**X. APPENDIX OF CLAIMS INVOLVED IN THE APPEAL**

The text of the claims involved in the appeal are:

1.

A rake attachment for a PTO-driven large bale baler comprising:

a frame having a front end and a rear end along a longitudinal axis, and a passageway between said front and rear ends for a PTO shaft;

the front end including a connection adapted for connection of the frame to a motive means;

the rear end including connection adapted for connection of the frame to a said large baler;

a ground-driven, non-powered wheel rake connected to and moveable between a working

position extended to a raking width laterally from the frame and a stored position raised

from the working position;

an actuator operably connected between the frame and the wheel rake allowing selective

actuation of the wheel rake between working and stored positions;

a suspension operably associated with the wheel rake to allow the wheel rake to move, over a

range, independently of the frame when in the working position, to allow the wheel rake

to follow variations in terrain.

3.

The rake attachment of claims 2 wherein the frame includes bearing members along the passage.

4.

The rake attachment of claim 1 wherein the connection on the front end of the frame comprises a hitch.

5.

The rake attachment of claim 1 wherein the connection on the front end comprises a hitch from a said large bale baler.

6.

The rake attachment of claim 1 wherein the connection on the rear-end comprises one or more frame pieces and bolts.

7.

The rake attachment of claim 6 wherein the frame pieces are adapted to match up with a large bale baler hitch connection.

8.

The rake attachment of claim 1 wherein the wheel rake comprises a wheel rotatably mounted on an arm attached to the frame member, the wheel having a rotational axis, a diameter and a perimeter, the perimeter including a plurality of spaced apart, generally outwardly extending tines.

9.

The rake attachment of claim 8 wherein the rotational axis of the wheel is at an angle from the longitudinal axis of the frame.



10.

The rake attachment of claim 9 wherein the angle is in the range of 20° to 60°.

11.

The rake attachment of claim 9 wherein the angle is in the range of 35° to 50°.

12.

The rake attachment of claim 9 wherein the angle is approximately 45°.

13.

The rake attachment of claim 9 further comprising a second ground-driven, non-powered wheel rake comprising a wheel rotatably mounted on a second arm attached to the frame.

14.

The rake attachment of claim 13 comprising a plurality of rake wheels on each arm.

15.

The rake attachment of claim 14 wherein the wheels are spaced apart but overlapped.

16.

The rake attachment of claim 1 further comprising, in combination, a large bale baler having a pick-up width, wherein the raking width extends laterally outside the pick-up width.

17.

The rake attachment of claim 15 wherein the raking width is substantially greater than the pick-up width.

18.

The rake attachment of claim 1 wherein the wheel rake comprises two arms extendable out from the frame and a plurality of rake wheels on each arm having planes of rotations at an angle to the longitudinal axis of the frame.

19.

The rake attachment of claim 18 wherein the rake wheels are spaced apart but overlapping.

20.

The rake attachment of claim 18 further comprising connections between each arm and the frame to raise and lower the rake wheels.

21.

The rake attachment of claim 18 further comprising an adjustable mount between the rake wheels and the arms comprising a component adapted to allow adjustability in raking width and vertical height of the rake wheel.

22.

The rake attachment of claim 18 further comprising a pivot between the frame and the rake wheels to allow the rake wheels to maintain contact with the terrain over variations in the train.

23.

The rake attachment of claim 8 wherein the arm includes a section that can pivot over a range around a pivot pin, the rake wheel being attached on either side of the pivot pin.

24.

The rake attachment of claim 18 further comprising, in combination, a baler, the baler attached to the connection member at the rear end of the frame; the baler having a pick-up width, the raking width extending outside the pick-up width.

25.

A large bale baling apparatus comprising:

- a large bale baler having an intake width and a connection member;
- a hitch adaptable for connection to a tractor;
- an intermediate framework attachable between the hitch and the connection member on the large bale baler;
- at least one arm attached at one end to the intermediate framework and extendible from the framework;
- at least one raking member operatively attached to the arm, the raking member comprising a ground-driven, non-powered wheel rake;
- a suspension member operatively connected between the raking member and the framework to allow independent movement of the raking member relative the framework;

the arm including a mounting member to allow movement of the arm between raised and working positions, the arm and raking member being configured such that when the framework is in operative connection with the hitch and baler and the hitch is connected to the tractor, in the raised position the arm and would not interfere with operation of the baler, allow backing, allow non-baling transport, and allow storage, and in a working position, the raking member extending laterally from the framework outside the intake width of the baler;

an actuator connected to the framework and a said arm adapted to selectively move the arm by remote activation between the raised and working positions.

26.

The apparatus of claim 25 further comprising an implement connected between the hitch and the baler.

27.

The apparatus of claim 26 wherein the implement is a shredder.

28.

The apparatus of claim 25 further in combination with a tractor, which is operatively connected in front of the rake member and baler.

29.

A method of baling comprising:  
in a single pass through a field, baling material through a pick-up width of a baler; while, from behind a motive means, raking material from an area substantially outside the pick-up width of the baler with a non-powered, ground-contacting wheel rake that is independently moveable relative the field to follow the terrain of the field;  
selectively, by operator actuated control, raising the wheel rake a substantial vertical distance and moving the wheel rake substantially inward to allow unobstructed baling, non-baling transport, storage, or backing.

30.

The method of claim 29 wherein substantially outside the pick-up width of the baler comprises is at least 25% wider than the pickup width.

31.

A rake attachment for a PTO-driven large bale baler comprising:  
a frame of less than approximately six feet in length having a front end and a rear end along a longitudinal axis, and a passageway between said front and rear ends for a PTO shaft;  
the front end including a hitch connection adapted for pivotable connection of the frame to a motive means;  
the rear end including connection adapted for rigid connection of the frame to a said large baler;

a ground-driven, non-powered wheel rake connected to and moveable between a working position extended to a raking width laterally from the frame and a stored position raised from the working position;

an actuator operably connected between the frame and the wheel rake allowing selective actuation of the wheel rake between working and stored positions;

a suspension operably associated with the wheel rake to allow the wheel rake to move, over a range, independently of the frame when in the working position, to allow the wheel rake to follow variations in terrain;

the frame including a PTO extension shaft rotatably supported in the frame and having a first end operably connectable to a PTO of a motive means, and a second end operably connectable to the baler;

the wheel rake comprising two sets of at least two wheels, each wheel of at least thirty-six inches diameter and attached to the frame and moveable between stored and working positions, each set extendable to a raking width laterally and angularly from the frame on opposite sides of the frame so that in a working position the distance between farthest raking width of both sets of wheels when in working position is at least 50% greater than the intake width of the baler, each wheel of each set slightly overlapping on another;

in a stored position the wheel rake, frame being less than 8 feet wide and the wheels of the wheel rake at least two feet off the ground.

32.

The rake attachment of claim 31 wherein the frame pieces are adapted to match up with a large bale baler hitch connection.

33.

The rake attachment of claim 31 wherein the wheel rake comprises a wheel rotatably mounted on an arm attached to the frame member, the wheel having a rotational axis, a diameter and a perimeter, the perimeter including a plurality of spaced apart, generally outwardly extending tines.

34.

The rake attachment of claim 33 wherein the rotational axis of the wheel is at an angle from the longitudinal axis of the frame.

35.

A large bale baling apparatus comprising:  
a large bale baler having an intake width and a hitch connection member;  
a hitch connectable to the hitch connection member of the baler and adaptable for pivotable connection to a tractor;  
an intermediate framework attachable between the hitch and the connection member on the large bale baler, and including a PTO extension shaft supported in the framework to connect a PTO of a tractor with the baler;

first and second sets of at least two non-powered, ground-driven wheel rake wheels operatively attached to the framework by a connection, each wheel having at least a thirty-six inch diameter;

a suspension member operatively connected between the wheels and the framework to allow independent movement of the wheels relative the framework;

the connection allowing movement of the wheels between raised and working positions, in the raised position the wheels would not interfere with operation of the baler, allow backing, allow non-baling transport, and allow storage, and in a working position the wheels extend laterally from the framework outside the intake width of the baler but at an angle to the longitudinal axis of the frame;

an actuator connected to the framework and each said mount adapted to selectively move the wheels by remote activation between the raised and working positions.

36.

The apparatus of claim 35 further in combination with a tractor, which is operatively connected in front of the rake member and baler.

37.

A method of baling comprising:

in a single pass through a field, baling material through a pick-up width of a baler; while, from behind a motive means, raking material from an area substantially outside the pick-up width of the baler with two sets of non-powered, ground-contacting wheel rake, each set



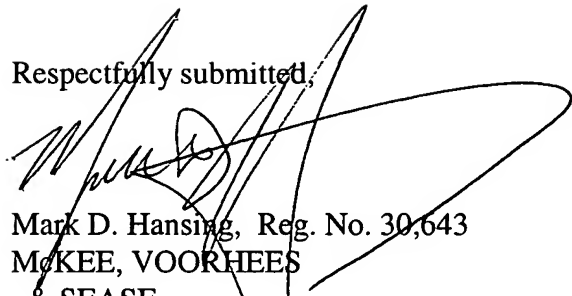
comprising two thirty-six inch diameter or greater wheels slightly overlapped in coverage and at an angle to the direction of travel, the sets of wheels being independently moveable relative the field to follow the terrain of the field;

selectively, by operator actuated control, raising the wheel rake a substantial vertical distance and moving the wheel rake substantially inward to allow unobstructed baling, non-baling transport, storage, or backing.

38.

The method of claim 37 wherein the pick-up width of the baler is effectively increased at least 50% wider by the raking wheels.

Respectfully submitted,



Mark D. Hansing, Reg. No. 30,643  
McKEE, VOORHEES  
& SEASE

801 Grand Avenue, Suite 3200  
Des Moines, Iowa 50309-2721  
Phone No. (515) 288-3667  
Fax No. (515) 288-1338  
**CUSTOMER NO: 22885**

Attorneys of Record

- WRW -

**PATENT**

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

APPLICANT : Mark W. Paulsen  
SERIAL NO : 10/037,113  
FILED : October 22, 2001  
TITLE : COMBINED BALER AND RAKE APPARATUS  
  
Grp./A.U. : 3671  
Examiner : M. Petravick  
Conf. No. : 5983  
Docket No. : P02248US2

**AMENDMENT AFTER FINAL  
37 CFR 1.116**

Mail Stop AF  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

In further response to the Final Rejection mailed January 29, 2003, and to reduce issues in the pending appeal of this application (Notice of Appeal filed June 30, 2003) please enter the following:

\*\*\*\*\*  
CERTIFICATION OF MAILING/TRANSMISSION (37 C.F.R. § 1.8(A))

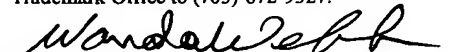
I hereby certify that this correspondence is, on the date shown below, being:

**MAILING**

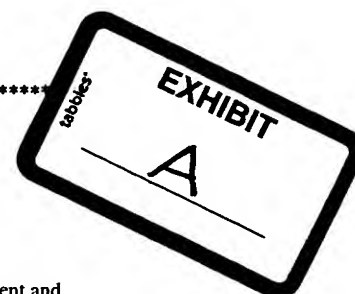
☐ deposited with the United States Postal Service with sufficient postage as first class mail in an Envelope addressed to the Assistant Commissioner For Patents, Washington, D.C. 20231

**FACSIMILE**

☒ transmitted by facsimile to the Patent and Trademark Office to (703)-872-9327.

  
Wanda Webb

Date: \_\_\_\_\_



Amendments to Claims

Please cancel, without prejudice, claims 1, 3-5, 8, 13, 14, 15, 19, 25, and 28-30.

Please amend certain claims as follows:

1. (canceled) A rake attachment for a PTO-driven large bale baler comprising:  
a frame having a front end and a rear end along a longitudinal axis, and a passageway between said front and rear ends for a PTO shaft;  
the front end including a connection adapted for connection of the frame to a motive means;  
the rear end including connection adapted for connection of the frame to a said large baler;  
a ground-driven, non-powered wheel rake connected to and moveable between a working position extended to a raking width laterally from the frame and a stored position raised from the working position;  
an actuator operably connected between the frame and the wheel rake allowing selective actuation of the wheel rake between working and stored positions;  
a suspension operably associated with the wheel rake to allow the wheel rake to move, over a range, independently of the frame when in the working position, to allow the wheel rake to follow variations in terrain.
- 2.(canceled) The rake attachment of claim 1 wherein the frame member includes a passage between front and rear ends for a PTO shaft.
3. (canceled) The rake attachment of claims 2 wherein the frame includes bearing members along the passage.

4. (canceled) The rake attachment of claim 1 wherein the connection on the front end of the frame comprises a hitch.
5. (canceled) The rake attachment of claim 1 wherein the connection on the front end comprises a hitch from a said large bale baler.
- 6.(currently amended) The rake attachment of claim ~~4~~31 wherein the connection on the rear-end comprises one or more frame pieces and bolts.
7. (previously presented) The rake attachment of claim 6 wherein the frame pieces are adapted to match up with a large bale baler hitch connection.
8. (canceled) The rake attachment of claim 1 wherein the wheel rake comprises a wheel rotatably mounted on an arm attached to the frame member, the wheel having a rotational axis, a diameter and a perimeter, the perimeter including a plurality of spaced apart, generally outwardly extending tines.
9. (currently amended) The rake attachment of claim ~~8~~32 wherein the rotational axis of the wheel is at an angle from the longitudinal axis of the frame.
10. (original) The rake attachment of claim 9 wherein the angle is in the range of 20° to 60°.

11. (original) The rake attachment of claim 9 wherein the angle is in the range of 35° to 50°.
12. (original) The rake attachment of claim 9 wherein the angle is approximately 45°.
13. (canceled) The rake attachment of claim 9 further comprising a second ground-driven, non-powered wheel rake comprising a wheel rotatably mounted on a second arm attached to the frame.
14. (canceled) The rake attachment of claim 13 comprising a plurality of rake wheels on each arm.
15. (canceled) The rake attachment of claim 14 wherein the wheels are spaced apart but overlapped.
16. (currently amended) The rake attachment of claim ~~13~~1 further comprising, in combination, a large bale baler having a pick-up width, wherein the raking width extends laterally outside the pick-up width.
17. (currently amended) The rake attachment of claim ~~15~~3 wherein the raking width is substantially greater than the pick-up width.

18. (currently amended) The rake attachment of claim ~~431~~31 wherein the wheel rake comprises two arms extendable out from the frame and a plurality of rake wheels on each arm having planes of rotations at an angle to the longitudinal axis of the frame.

19. (canceled) The rake attachment of claim 18 wherein the rake wheels are spaced apart but overlapping.

20. (previously presented) The rake attachment of claim 18 further comprising connections between each arm and the frame to raise and lower the rake wheels.

21. (previously presented) The rake attachment of claim 18 further comprising an adjustable mount between the rake wheels and the arms comprising a component adapted to allow adjustability in raking width and vertical height of the rake wheel.

22. (previously presented) The rake attachment of claim 18 further comprising a pivot between the frame and the rake wheels to allow the rake wheels to maintain contact with the terrain over variations in the train.

23. (currently amended) The rake attachment of claim ~~822~~22 wherein the arm includes a section that can pivot over a range around a pivot pin, the rake wheel being attached on either side of the pivot pin.

24. (previously presented) The rake attachment of claim 18 further comprising, in combination, a baler, the baler attached to the connection member at the rear end of the frame; the baler having a pick-up width, the raking width extending outside the pick-up width.

25. (canceled) A large bale baling apparatus comprising:

a large bale baler having an intake width and a connection member;

a hitch adaptable for connection to a tractor;

an intermediate framework attachable between the hitch and the connection member on the large bale baler;

at least one arm attached at one end to the intermediate framework and extendible from the framework;

at least one raking member operatively attached to the arm, the raking member comprising a ground-driven, non-powered wheel rake;

a suspension member operatively connected between the raking member and the framework to allow independent movement of the raking member relative the framework;

the arm including a mounting member to allow movement of the arm between raised and working positions, the arm and raking member being configured such that when the framework is in operative connection with the hitch and baler and the hitch is connected to the tractor, in the raised position the arm and would not interfere with operation of the baler, allow backing, allow non-baling transport, and allow storage, and in a working position, the raking member extending laterally from the framework outside the intake width of the baler;



an actuator connected to the framework and a said arm adapted to selectively move the arm by remote activation between the raised and working positions.

26. (currently amended) The apparatus of claim ~~25~~35 further comprising an implement connected between the hitch and the baler.

27. (previously presented) The apparatus of claim 26 wherein the implement is a shredder.

28. (canceled) The apparatus of claim 25 further in combination with a tractor, which is operatively connected in front of the rake member and baler.

29. (canceled) A method of baling comprising:

in a single pass through a field, baling material through a pick-up width of a baler; while, from

behind a motive means, raking material from an area substantially outside the pick-up

width of the baler with a non-powered, ground-contacting wheel rake that is

independently moveable relative the field to follow the terrain of the field;

selectively, by operator actuated control, raising the wheel rake a substantial vertical distance

and moving the wheel rake substantially inward to allow unobstructed baling, non-baling

transport, storage, or backing.

30. (canceled) The method of claim 29 wherein substantially outside the pick-up width of the baler comprises is at least 25% wider than the pickup width.

31. (currently amended) A rake attachment for a PTO-driven large bale baler comprising:  
a frame of less than ~~approximately six~~ a few feet in length having a front end and a rear end  
along a longitudinal axis, and a passageway between said front and rear ends for a PTO  
shaft;  
the front end including a hitch connection adapted for pivotable connection of the frame to a  
motive means;  
the rear end including connection adapted for rigid connection of the frame to a said large baler;  
a ground-driven, non-powered wheel rake connected to and moveable between a working  
position extended to a raking width laterally from the frame and a stored position raised  
from the working position;  
an actuator operably connected between the frame and the wheel rake allowing selective  
actuation of the wheel rake between working and stored positions;  
a suspension operably associated with the wheel rake to allow the wheel rake to move, over a  
range, independently of the frame when in the working position, to allow the wheel rake  
to follow variations in terrain;  
the frame including a PTO extension shaft rotatably supported in the frame and having a first end  
operably connectable to a PTO of a motive means; and a second end operably  
connectable to the baler;  
the wheel rake comprising two sets of at least two wheels, each wheel of ~~at least thirty-six inches~~  
~~diameter and~~ attached to the frame and moveable between stored and working positions,  
each set extendable to a raking width laterally and angularly from the frame on opposite  
sides of the frame so that in a working position the distance between farthest raking width

of both sets of wheels when in working position is at least 50% greater than the intake width of the baler, each wheel of each set slightly overlapping on another;  
in a stored position, the wheel rake, ~~frame being less than 8 feet wide~~ foldable inwardly and upwardly and so that the wheels of the wheel rake are at least two feet substantially off the ground.

32. (previously presented) The rake attachment of claim 31 wherein the frame pieces are adapted to match up with a large bale baler hitch connection.

33. (previously presented) The rake attachment of claim 31 wherein the wheel rake comprises a wheel rotatably mounted on an arm attached to the frame member, the wheel having a rotational axis, a diameter and a perimeter, the perimeter including a plurality of spaced apart, generally outwardly extending tines.

34. (previously presented) The rake attachment of claim 33 wherein the rotational axis of the wheel is at an angle from the longitudinal axis of the frame.

35. (previously presented) A large bale baling apparatus comprising:  
a large bale baler having an intake width and a hitch connection member;  
a hitch connectable to the hitch connection member of the baler and adaptable for pivotable connection to a tractor;

an intermediate framework attachable between the hitch and the connection member on the large bale baler, and including a PTO extension shaft supported in the framework to connect a PTO of a tractor with the baler;

first and second sets of at least two non-powered, ground-driven wheel rake wheels operatively attached to the framework by a connection, each wheel having at least a thirty-six inch diameter;

a suspension member operatively connected between the wheels and the framework to allow independent movement of the wheels relative the framework;

the connection allowing movement of the wheels between raised and working positions, in the raised position the wheels would not interfere with operation of the baler, allow backing, allow non-baling transport, and allow storage, and in a working position the wheels extend laterally from the framework outside the intake width of the baler but at an angle to the longitudinal axis of the frame;

an actuator connected to the framework and each said mount adapted to selectively move the wheels by remote activation between the raised and working positions.

36. (previously presented) The apparatus of claim 35 further in combination with a tractor, which is operatively connected in front of the rake member and baler.

37. (currently amended) A method of baling comprising:

in a single pass through a field, baling material through a pick-up width of a large bale baler;

while, from behind a motive means, raking material from an area substantially outside the pick-up width of the baler with two sets of non-powered, ground-contacting wheel rake,

each set comprising two thirty-six inch diameter or greater wheels slightly overlapped in coverage and at an angle to the direction of travel, the sets of wheels being independently moveable relative the field to follow the terrain of the field;  
selectively, by operator actuated control, raising the wheel rake a substantial vertical distance and moving the wheel rake substantially inward to allow unobstructed baling, non-baling transport, storage, or backing.

38. (previously presented) The method of claim 37 wherein the pick-up width of the baler is effectively increased at least 50% wider by the raking wheels.

\*\*\*

**REMARKS****A. *Overview***

Claims 1 and 3-38 are pending. These claims are under appeal to the Board of Patent Appeals and Interferences. However, under 37 CFR 1.116 and MPEP Section 1207, Applicant respectfully submits that present amendment to (a) simplify the issues on appeal and (b) attempt to resolve Section 112 rejections regarding wording of some of the claims. Therefore, entry of this amendment is respectfully requested on the grounds it will simplify issues on appeal.

**B. *Requirements Regarding the Drawings***

It is noted that the Final Rejection approves the drawings submitted at the end of 2002. Applicant respectfully reserves the right to file formal drawings at such time a Notice of Allowance might be issued in this application. If formal drawings are required sooner, please notify the undersigned.

**C. *Section 112 Rejections of Claims***

Claims 31-36 have been rejected under Section 112, first paragraph. Although Applicant respectfully traverses each rejection on the grounds the specification does provide support for the clauses objected to in the Final Rejection, to advance prosecution of the application it is respectfully submitted each such rejection is remedied by this response for the following reasons.

- a. The limitation of "less than approximately 6 feet" has been changed to "a few feet". Explicit support can be found in Applicant's specification, at least at page 12, first partial paragraph and first full paragraph (giving example of three foot frame).
- b. The limitation of "at least thirty six inches" has been deleted.

- c. The limitation of "less than 8 feet wide" has been deleted and substituted by "foldable inwardly and upwardly". This is explicitly supported in the drawings of the application, particularly Figure 4, and the corresponding description of the embodiments where the arm bearing the wheel rakes is raisable and lowerable by hydraulic cylinders (*see, e.g.*, specification pages 13, first partial paragraph; page 15, paragraphs 1,2 and 3; page 16, first partial paragraph and full paragraphs 2 and 3.
- d. The limitation "at least two feet off the ground" has been changed to "substantially off the ground". The drawings and specification describe how the rakes can be lifted off the ground and not interfere with other use of the baler and tractor. *See, e.g.*, page 6, second paragraph. Figure 4 shows the arm holding wheel rakes pivoted approximately ninety degree up. The term substantially is submitted to be apt and definite based on the specification.

Claim 3 was rejected as being dependent from a previously canceled claim 2. Claim 3 has been deleted in this response, making this rejection moot.

Note also that the following claim changes have been made:

- e. The dependency of claim 6 has been changed from claim 1 (now canceled) to independent claim 31.
- f. The dependency of claim 9 has been changed from claim 8 (now canceled) to dependent claim 33.
- g. The dependency of claims 16, 17, and 18 has been changed from claims 1 and 15 (both now canceled) to claim 31.

- h. The dependency of claim 23 has been changed from claim 8 (now canceled) to dependent claim 22.
- i. The dependency of claim 26 has been changed from claim 25 (now canceled) to independent claim 35.
- j. The phrase "foldable inwardly and upwardly"
- k. The phrase "large bale" has been added to claim 37 to make claim 37 consistent with all the other claims, which have this limitation.

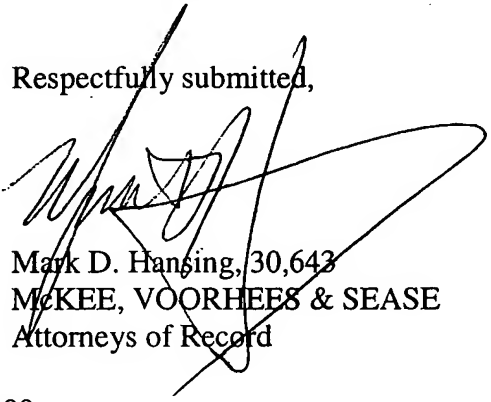
These changes are made solely to remedy any dispute about support for the claim language in Applicant's specification, and not to avoid prior art.

***D. Conclusion***

It is respectfully submitted that the present response should be entered and the Section 112 rejections withdrawn. Favorable action is respectfully requested.

It is not believed that any fee and/or request for extension of time is required for entry of this response. If any such fee and/request is needed, however, please consider this a request therefore and charge any required fee to deposit account #26-0084.

Respectfully submitted,



Mark D. Hanging, 30,643  
McKEE, VOORHEES & SEASE  
Attorneys of Record

801 Grand Avenue - Suite 3200  
Des Moines, Iowa 50309-2721  
515-288-3667 - wrw -  
515-282-6778 FAX